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Reported Fire Losses In The Petroleum Industry For 1983

Statistics Department

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American
Petroleum
Institute

REPORTED FIRE LOSSES IN THE PETROLEUM INDUSTRY—1983

The experience of 160 companies reporting to the 54th annual fire loss survey to the American Petroleum Institute indicates a ratio of fire losses to current replacement value in 1983 of 5.4 cents per $100. A current replacement value of $318,686,916,316 was reported for structures, equipment, contents and oil stocks in 1983.

Fire losses of $172,566,959 were reported for the year. The number of fires reported for 1983 totaled 516.

TABLE 1

CURRENT REPLACEMENT VALUES, FIRE LOSSES, AND FIRE-LOSS RATIOS, BY CLASSES OF PROPERTY FOR 1983

Classes of Property	Current Replacement Value $	Fire Loss $	Fire-Loss Ratio $/$100
Exploration, Production & Gas Processing	148,542,387,223	67,135,311	0.045
Refining	61,148,110,030	57,013,623	0.093
Marketing	20,608,189,655	16,718,303	0.081
Pipeline	53,170,359,392	6,354,321	0.012
Chemical Operations	24,179,428,408	21,884,281	0.091
Miscellaneous	11,038,441,608	3,461,120	0.031
All Properties	318,686,916,316	172,566,959	0.054

NOTES: The reporting of fires for 1983 was restricted to those resulting in losses of $2,500 or more.

A list of the companies participating in the survey for 1983 appears on pages 5 and 6.

REPORTED FIRE LOSSES IN THE PETROLEUM INDUSTRY—1982

REVISED

The experience record of 131 companies reporting to the 53rd annual fire loss survey to the American Petroleum Institute indicates a ratio of fire losses to current replacement value in 1982 of 3.0 cents per $100. A current replacement value of $286,177,448,168 was reported for structures, equipment, contents and oil stocks in 1982.

Fire losses of $84,457,177 were reported for the year. The number of fires reported for 1982 totaled 512.

TABLE 1

CURRENT REPLACEMENT VALUES, FIRE LOSSES, AND FIRE-LOSS RATIOS, BY CLASSES OF PROPERTY FOR 1982

Classes of Property	Current Replacement Value $	Fire Loss $	Fire-Loss Ratio $/$100
Exploration, Production & Gas Processing	135,552,516,529	21,279,588	0.016
Refining	59,881,637,212	45,149,604	0.075
Marketing	19,041,623,888	2,292,671	0.012
Pipeline	42,663,389,276	1,233,216	0.003
Chemical Operations	23,945,783,001	14,154,136	0.059
Miscellaneous	5,092,498,262	347,962	0.007
All Properties	286,177,448,168	84,457,177	0.030

NOTE: The reporting of fires for 1982 was restricted to those resulting in losses of $2,500 or more.

TABLE 2
NUMBER OF FIRES REPORTED FOR 1983 AND 1982

Class of Property	Year	Originating on Oil-Company Properties: Confined to Property	Originating on Oil-Company Properties: Spread to Other Property	Originated Outside But Spread to Oil-Company Property	No. $2,500 to $100,000 Loss	No. $100,000 to $1,000,00 Loss	No. over $1,000,000 Loss	Total Number of Fires
Exploration, Production & Gas Processing	1983	182	0	1	157	20	6	183
	1982	163	0	7	143	23	4	170
Refining	1983	173	0	0	111	51	11	173
	1982	201	0	0	148	45	8	201
Marketing	1983	52	0	1	43	8	2	53
	1982	58	0	1	51	8	0	59
Pipeline	1983	10	0	1	8	2	1	11
	1982	8	1	0	7	2	0	9
Chemical Operations	1983	70	0	0	56	12	2	70
	1982	61	0	0	54	6	1	61
Miscellaneous	1983	26	0	0	20	4	2	26
	1982	11	0	1	11	1	0	12
All Properties	1983	513	0	3	395	97	24	516
	1982	502	1	9	414	85	13	512

NOTE: The reporting of fires for 1983 was restricted to those resulting in losses of $2,500 or more.

TANK FIRE EXPERIENCE IN 1983

Fourteen companies responded to a questionnaire requesting information on fires originating in tanks, resulting in losses of $2,500 or more per fire. Reports on such fires in 1983 are summarized in Table 3. A total of 51 fires in this category were reported for 1983. These fires involved 63 tanks.

Of the tanks affected in 1983, 42 stored crude oil.

By type of tank involved in fires, 32 had cone roofs, and 13 were of the dome roof type.

Of a total of 63 tanks involved, 42 were located on producing properties, 13 at refineries, 1 in pipeline operations, and 4 at bulk plants and terminals.

TABLE 3

TANK FIRE EXPERIENCE IN 1983 and 1982

Fires Originating in Tanks Resulting in Losses of $2,500 or More

	Number of Tanks Involved in Fires																			
	Structural Type of Tank																			
	Floating Roof																			
	Pantograph Seal		Tube Seal		Covered		Total		Cone Roof		Dome Roof		Sphere & Spheroid		Horizontal		Other Types		Total	
	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982
By Class of Product:																				
Crude Oil	0	2	0	0	2	1	2	3	22	22	12	2	0	0	1	10	5	6	42	43
Products:																				
Under 100 F Flash	7	1	0	2	1	3	8	6	2	4	0	0	0	1	0	0	2	0	12	11
100–200 F Flash	0	0	0	0	0	0	0	0	2	8	0	2	0	0	0	0	0	0	2	10
Over 200 F Flash	0	0	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	2	2	7
LPG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	4	5	1	0	0	0	0	0	0	2	5	7
Total	7	3	0	2	3	4	10	9	32	44	13	4	0	1	1	10	7	10	63	78
By Location:																				
Producing Properties	0	0	0	0	0	0	0	0	23	33	12	1	0	0	1	10	6	7	42	51
Pipeline Operations	0	0	0	0	0	0	0	0	1	2	0	1	0	0	0	0	0	0	1	3
Refineries	3	3	0	1	3	2	6	6	6	9	1	0	0	1	0	0	0	2	13	18
Bulk Plants & Terminals	4	0	0	1	0	2	4	3	0	0	0	0	0	0	0	0	0	1	4	4
Other Locations	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	1	0	3	2
Total	7	3	0	2	3	4	10	9	32	44	13	4	0	1	1	10	7	10	63	78
Total Number of Fires Involving Tanks (regardless of number of tanks involved)																			51	66

COMPANIES PARTICIPATING IN THE 1983 SURVEY

Ada Oil Exploration Corporation
Alabama-Tennessee Natural Gas Company
Alyeska Pipeline Service Company
Amarex, Inc.
Amber Refining Inc.
Anchor Gasoline Corporation
Anderson Petroleum, Inc.
Argo Petroleum Corporation
Armour Properties
Asamera Oil (U.S.) Inc.
Ashland Oil, Inc.
Atlantic Energy, Inc.
Atlantic Richfield Company
BP North America Trading Inc.
Breckenridge Gasoline Company
Buckeye Pipe Line Company
Cabot Corporation
Caddo Pine Island Corporation
Cal Gas Corporation
CELERON Oil & Gas Company
Champlin Petroleum Company
Charter International Oil Company
Chase Transportation Company
Cibro Terminal Corporation
Cities Service Oil & Gas Corporation
Claiborne Gasoline Company
Clark Oil & Refining Corporation
Coastal Corporation, The
Coastal Oil Corporation
Colonial Pipeline Company
Colorado Interstate Gas Company
Columbia Gas Transmission Corporation
Conoco Inc.
Cook Inlet Pipe Line Company
Dart Oil & Gas Corporation
Daylight-Wiser Gas Processing
Denver Western Petroleum Corporation
Derby Refining Company
Dorchester Gas Corporation
E.E. Fogelson
E.I.L. Petroleum, Inc.
Eastern Seaboard Petroleum Corporation, Inc.
Eastland Oil Company
Eddy Refining Company
El Paso Natural Gas Company
El Paso Products Company
Erickson Petroleum Company
Equitable Gas Company
Equity Oil Company
Eureka Pipe Line Company, The
Explorer Pipeline Company
Exxon Chemical Americas
Exxon Company, U.S.A.
Getty Oil Company
Goldking Production Company
Gulf Coast Pipelines
Gulf Oil Corporation
H.L. Brown
Hellman Estate
Hewit & Dougherty
Home Petroleum Corporation
Hudson Refining Company
Hunt Oil Company
Husky Oil Company
Hydrocarbon Transportation, Inc.
Industrial Gas Services, Inc.
J-O'B Operating Company
K N Energy, Inc.
Kaneb Pipe Line Company
Kentucky Hydrocarbon Company
Kerr-McGee Refining Corporation
Koch Industries, Inc.
Ladd Petroleum Corporation
Lakehead Pipe Line Company, Inc.
Lakeside Refining Company
Laurel Pipe Line Company
Lone Star Gas Company
Loop Inc.
Louisiana Land & Exploration Company, The
Macmillian Petroleum Inc.

MAPCO Petroleum Inc.
Marathon Oil Company
Marion Corporation
Meenan Oil Company, Inc.
MGPC
Mid-Valley Pipeline Company
Minerals, Inc.
Mobil Oil Corporation
Monsanto Oil Company
Moore & Munger, Inc.
Murphy Oil USA, Inc.
National Cooperative Refinery Association
Navajo Refining Company
Newell Oil Company, Inc.
Nortex Gas & Oil Company
Northeast Petroleum Corporation
Northern Gas Products Company
Northville Industries Corporation,
Ohio Oil Gathering Corporation
Oklahoma Natural Gas Company
Oklahoma Refining Company
Pacific Refining Company
Panhandle Eastern Corporation
Pantera Energy Corporation
Parade Company, The
Pennzoil Company
Peoples Natural Gas Company, The
Petrolane Lomita Gasoline Company
Phillips Petroleum Company
Plantation Pipe Line Company
Plateau, Inc.
Portal Pipe Line Company
Portland Pipe Line Corporation
Pride Refining Inc.
Producers Gas Equities, Inc.
Public Service Company of Colorado
Quaker State Oil Refining Corporation
Rocket Oil Company
Saber Refining Company
Santa Fe Energy Company
Santa Fe Pipeline Company
Sergeant Oil & Gas Company
Shell Oil Company
Sinclair Oil Corporation
Skaer Enterprises, Inc.
Somerset Refinery, Inc., The
Southern Natural Gas Company
Southern Pacific Pipe Lines, Inc.
Southern Union Refining Company
Southland Oil Company
Southwestern Refining Company, Inc.
Standard Oil Company Of California
Standard Oil Company (Indiana)
Standard Oil Company (Ohio)
Steuart Petroleum Company
Sun Company, Inc.
Tauber Oil Company
Tenneco Oil Company
Tensas Processing Corporation
Tesoro Petroleum Corporation
Texaco Inc.
Texas Eastern Transmission Corporation
Texas Gas Resources Corporation
Texas Oil & Chemical Company
Thriftway Company, Inc.
Tosco Corporation
Total Petroleum (North America) Ltd.
True Oil Company
Union Gas System Inc.
Union Oil Company of California
United Energy Resources
United Refining Company
UPG, Inc.
Valero Energy Corporation
West Shore Pipe Line Company
Williams Pipe Line Company
Witco Oil & Gas Producing Division
Wyco Pipe Line Company
Yankee Oil & Gas Incorporated
Young Refining Corporation

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